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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/980,573	02/06/2002	Harald Genger	22054	5984

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EXAMINER

FOREMAN, JONATHAN M

ART UNIT PAPER NUMBER

3736

DATE MAILED: 04/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SP

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/980,573	GENGER ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Jonathan ML Foreman	3736	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 February 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-5,7,8 and 10-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,7,8 and 10-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/24/04 has been entered.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3 – 5, 7 and 10 -16 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,119,693 to Kwok et al. in view of U.S. Patent No. 5,353,788 to Miles and further in view of U.S. Patent No. 6,171,258 to Karakasoglu et al.

In reference to claims 1, 3– 5, 7 and 10 - 16, Kwok et al. discloses a mask member (Figures 1 - 4) that engages over the nose region of a patient, a sealing device (Figure 4) for sealing off an inner region of the mask with respect to the ambient atmosphere (Col. 1, lines 23 – 24), and a forehead support element (10) for supporting the mask member in the forehead region of the patent (Col. 2, lines 57 – 61) extending from the mask device. The mask has a seal engaging the face of the patient around a nose and mouth region (Col. 3, line 4) and has a cavity surrounded by the seal and a drawn-in region receiving the nose of the patient. The position of forehead support element is

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established in conjunction with the position of the mask device. The forehead support element is coupled to the mask device and integral with the mask device (Col. 2, lines 56 – 67). The forehead support material comprises an elastomer material (Col. 3, lines 19 - 22). Kwok et al. discloses a stiffening element that couples the forehead support element (Col. 3, lines 5 – 14) and the mask device. Kwok et al. discloses the mask for being used to treat and prevent sleep disorders (Col. 1, lines 11 – 16). However, Kwok et al. fails to disclose the forehead support element having an electrode device being coupled to a signal processing device for detecting and processing brain-electrical potentials of a patient. Miles teaches a breathing mask for treating and preventing sleep disorders (Col. 4, lines 28 – 31) having an electrode device coupled to the mask for detecting brain electrical potentials of a patient (Col. 4, lines 44 – 59). Karakasoglu et al. discloses a forehead support element used for diagnosing sleep disorders having at least two electrode elements coupled to a signal processing device for detecting and processing brain-electrical potentials of a patient (Col. 5, lines 18 – 22). It would have been obvious to one having ordinary skill in the art at the time the invention was made to couple the breathing mask as disclosed by Kwok et al. and an electrode device for detecting brain electrical potentials of a patient together as taught by Miles by modifying the forehead support device as disclosed by Kwok et al. to include an electrode device and measuring circuit for detecting brain-electrical potentials as taught by Karakasoglu et al. in order to diagnose sleep disorders and to ascertain sleep staging of a patient (Col. 5, lines 1 – 6).

4. Claims 12, 15, 17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,199,550 to Wiesmann et al. in view of U.S. Patent No. 6,167,298 to Levin.

In reference to claims 12, 15, 17 and 19, Wiesmann et al. discloses a device worn by emergency personnel (Figure 3) with a sensor device applied to the forehead region of the patient (Col. 5, lines 25 – 27), where the sensor device is arranged on a forehead support element (50) that

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co-operates with a breathing mask device adapted to fit over a mouth and nose of the wearer in a way that the position of the sensor device is established in conjunction with the application position of the breathing mask device. The forehead support element (50) is coupled to the mask device and is integral with the mask. The forehead support element is formed in one piece with a mask base member. The sensor device has three sensor elements (20, 22, 70). The sensor elements are coupled to a signal processing device (Col. 5, lines 62 – 67). A sealing device seals off an inner region of the mask (Col. 5, lines 28 – 30). Wiesmann et al. discloses a sensor device (20, 22, 70), a measuring circuit arrangement for producing data in accordance with the measured values (Col. 5, lines 62 – 67) detected by the sensor device, characterized in that the circuit is partially integrated into a forehead support element (Col. 5, lines 25 – 27), and there is a signal transmission device for cord-less transmission of the data produced by the measuring circuit and a data recording device (Col. 13, line 55 – Col. 14, line 33). However, Wiesmann et al. fails to disclose the sensor elements being electrode elements for detecting brain electrical potentials. Levin discloses a device having electrode elements (10) worn against the forehead region of a user (Col. 4, lines 39 – 42) for detecting brain electrical potentials (Col. 4, lines 37 – 39). It would have been obvious to one having ordinary skill in the art at the time the invention was made to replace the sensors as disclosed by Wiesmann et al. with electrodes to detect brain potentials as taught by Levin in order to allow monitoring of an emergency personnel's brain wave patterns to determine if the subject is in an alert mental state (Col. 2, lines 17 – 26).

5. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,119,693 to Kwok et al. in view of U.S. Patent No. 5,353,788 to Miles and further in view of U.S. Patent No. 6,171,258 to Karakasoglu et al. as applied to claim 1 above, and further in view of U.S. Patent No. 5,479,934 to Imran.

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In regards to claim 8, Kwok et al. in view of Miles and further in view of Karakasoglu et al. fail to disclose the electrodes being mounted on a surface to yield in a direction perpendicular to the application surface. However, Imran discloses a device having EEG electrodes and mounting the electrodes on a surface that yields in a direction perpendicular to the application surface (Col. 7, lines 10 – 14). It would have been obvious to one having ordinary skill in the art at the time the invention was made to mount the electrodes as disclosed by Kwok et al. in view of Miles and further in view of Karakasoglu et al. on a surface as taught by Imran in order to retain the electrodes in contact with the head of the patient.

6. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,199,550 to Wiesmann et al. in view of U.S. Patent No. 6,167,298 to Levin as applied to claim 17 above, and further in view of U.S. Patent No. 6,171,258 to Karakasoglu et al.

In regards to claim 18, Wiesmann et al. in view Levin discloses forwarding data to a signal transmission device, but fail to disclose a data compression device for forwarding a compressed data set to the signal transmission device. However, Karakasoglu et al. teaches a data compression device for forwarding compressed data to a signal transmission device (Col. 5, line 57 – Col. 6, line 27). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device as disclosed by Wiesmann et al. in view of Levin to include a data compression device for forwarding compressed data to a signal transmission device as taught by Karakasoglu et al. in order to suppress background noise prior to transmission.

7. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,199,550 to Wiesmann et al. in view of U.S. Patent No. 6,167,298 to Levin as applied to claim 19 above, and further in view of U.S. Patent No. 6,230,049 to Fischell et al.

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In regards to claim 20, Wiesmann et al. in view Levin discloses a measurement data recording device, but fails to disclose the data recording device being an approximately postage stamp-size memory card element that is releasably fitted. Fischell et al. discloses a wireless EEG monitoring system wherein the data recording device is an approximately postage stamp-size memory card element that is releasably fitted (Col. 63 – 64). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the data recording device as disclosed by Wiesmann et al. in view Levin to be an approximately postage stamp-size memory card element that is releasably fitted as taught by Fischell et al. in order to store large amounts of data (Col. 6, lines 60 – 63).

### *Response to Arguments*

Applicant's arguments filed 1/24/05 have been fully considered but they are not persuasive.

8. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

9. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, motivation to

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combine Wiesmann et al. with Levin comes from the references themselves. Wiesmann et al. discloses a device to be worn by emergency personnel having electrodes in contact with the forehead region of the wearer, and Levin teaches electrodes in contact with the forehead region of a wearer for monitoring the brain wave patterns of emergency personnel (See Paragraph 4 above).

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan ML Foreman whose telephone number is (571)272-4724. The examiner can normally be reached on Monday - Friday 8:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Max Hindenburg can be reached on (571)272-4726.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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